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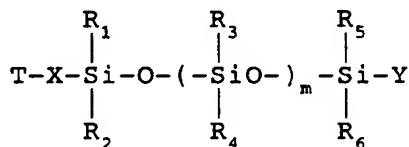
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**Siloxane iniferter compounds, block copolymers made therewith and a method of making the block copolymers.**

The present invention provides novel siloxane iniferter compounds, block copolymers made therewith, and a method of making the block copolymers. The siloxane iniferter compounds can be represented by the formula



wherein

T and X are organic groups selected so that the T-X bond is capable of dissociating upon being subjected to an appropriate energy source to form a terminator free radical of the formula T<sup>•</sup> and an initiator free radical.

R<sub>1</sub>, R<sub>2</sub>, R<sub>5</sub> and R<sub>6</sub> are monovalent moieties selected from the group consisting of hydrogen, C<sub>1-4</sub> alkyl,

C<sub>1-4</sub> alkoxy and aryl which can be the same or are different;

R<sub>3</sub> and R<sub>4</sub> are monovalent moieties which can be the same or different selected from the group consisting of hydrogen, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> fluoroalkyl including at least one fluorine atom and aryl;

Y is selected from the group consisting of -X-T and -Z wherein X and T are defined above and Z is an organic moiety that will not dissociate to form free radicals when subjected to said energy source; and m is an integer of at least 10.

The initiator free radical is capable of initiating free radical polymerization of free radically polymerizable monomer. The terminator free radical is insufficiently capable of initiating free radical polymerization of free radically polymerizable monomer but is capable of rejoining with the initiator free radical or a free radical polymer segment free radically polymerized with the initiator free radical.



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## EUROPEAN SEARCH REPORT

Application Number

**EP 90 30 8912**

### DOCUMENTS CONSIDERED TO BE RELEVANT

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
E	EP-A-0 386 615 (MITSUBISHI PETROCHEMICAL COMPANY LIMITED) * whole document ** - - -	1-8,10	C 08 F 293/00 C 08 G 77/22 C 08 G 77/382 C 08 G 77/442
X	WORLD PATENTS INDEX LATEST Week 8550, Derwent Publications Ltd., London, GB; AN 85-314533 & JP-A-60 220 341 (NIPPON TELEGRAPH & TELEPHONE) 5 November 1985 * abstract ** - - -	1-4	
A	JOURNAL OF APPLIED POLYMER SCIENCE vol. 29, no. 3, March 1984, NEW YORK, USA pages 877 - 889; H. INOUE ET AL.: 'Surface Photografting of Hydrophilic Vinyl Monomers onto Diethyldithiocarbamated Polydimethylsiloxane' * page 877 ** page 878, paragraph 2 *** page 879, paragraphs 2, 3 ** - - -	1-4,7,8,10	
X	US-A-3 445 496 (J. W. RYAN) * column 2, line 25 - line 36; claim 4; examples 7,10 ** - - -	1,4-6	
X	CHEMICAL ABSTRACTS, vol. 105, no. 20, 17 November 1986, Columbus, Ohio, US; abstract no. 173534S, H. INOUE ET AL.: 'Photografting of vinyl monomers into diethyldithiocarbamated polydimethylsiloxane' page 34 ; * abstract * & Kagaku to Kogyo (Osaka) 1986, 60(3), 81-90 * - - -	1-4,7,8,10	TECHNICAL FIELDS SEARCHED (Int. Cl.5)  C 08 F C 08 G
D,A	GB-A-2 188 056 (GENERAL ELECTRIC COMPANY) * claims 1-19 ** - - - - -	1,7,8,10	
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		10 December 91	KANETAKIS I.
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention		E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons ----- &: member of the same patent family, corresponding document	